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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/707,202	11/26/2003	Bruce Albrecht	ITW7510.057	1201
33647	7590	03/28/2006	EXAMINER	
ZIOLKOWSKI PATENT SOLUTIONS GROUP, SC (ITW)			SHAW, CLIFFORD C	
14135 NORTH CEDARBURG ROAD			ART UNIT	
MEQUON, WI 53097			PAPER NUMBER	
			1725	

DATE MAILED: 03/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/707,202

Applicant(s)

ALBRECHT ET AL.

Examiner

Clifford C. Shaw

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 4-45 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4-10, 18, 21-25, 27-36, and 40-45 is/are rejected.
- 7) ☒ Claim(s) 11-17, 19, 20, 26 and 37-39 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Detailed Action

1.) The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2.) Claims 1, 2, 4, 10, 18, 21, and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Blankenship (6,331,694). The patent to Blankenship (6,331,694) discloses a welding type power source that includes the following claim features: the power source is “portable” as discussed at column 7, lines 29-31 and column 9, lines 39-40; the power source includes an “energy storage device” 90 including elements 170, 160, 140, 110 (see figure 7) that provides a first output voltage on lines 104 and 108 (note that the fuel cell based system 90 is an “energy storage device” in the sense that it relies on the chemical energy stored in its fuel supply to provide electrical energy); a boost circuit associated with element 270 in figure 7; and a chopper circuit associated with element 300 in figure 7. In regard to claims 10 and 21, note that the patent to Blankenship (6,331,694) teaches at least a gas tungsten arc welding process as described in column 16, lines 1-25. In regard to claim 22, see the discussion of output voltage and current control at column 14, lines 54-64.

3.) Claim 35 is rejected under 35 U.S.C. 102(b) as being anticipated by either one of UK Patent Application GB2316244A or Crandell, III (6,747,246). Claim 35 is directed to a

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rechargeable battery. This rechargeable battery has an intended use in connection with a welding type apparatus whereby the “fully charged output [of the battery is] less than that required by the welding-type apparatus”. Either one of UK Patent Application GB2316244A or Crandell, III (6,747,246) discloses a welding arrangement that includes a rechargeable battery (see element 10 in UK Patent Application GB2316244A and note the abstract – “the battery 10 may be a lead acid battery charged from a mains supply”; see the discussion of discussion of recharging batteries 20 at column 3 –4 of Crandell, III (6,747,246)). These disclosures satisfy the one structural feature of claim 35 (i.e., the rechargeable battery). The intended use of the rechargeable battery for use in a welding type apparatus having a fully charged output less than that required by the welding type apparatus does not impose any structural limitation on the battery being claimed that would distinguish over either one of UK Patent Application GB2316244A or Crandell, III (6,747,246). As far as the structural features of the batteries disclosed in either one of UK Patent Application GB2316244A or Crandell, III (6,747,246) are concerned, it would be possible to connect these batteries to any arbitrary load, thereby satisfying whatever structural limitation is imposed by the intended-use language in applicant’s claim.

4.) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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5.) Claims 5-9, 23-25, 33, 34, 36, and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blankenship (6,331,694). The patent to Blankenship (6,331,694) discloses a welding arrangement with features claimed, except for: the limitations directed to a control “module” in claim 5; and the limitations directed to interchangeable energy storage devices as in claims 9, 23, and 36. These differences do not patentably distinguish over the prior art. It is considered obvious that the welding control system 220 in Blankenship (6,331,694) is a “module” in some sense, because it is a component that performs a distinct operation in the overall system. In regard to the limitations directed to interchangeable energy storage devices, the discussion at the bottom of column 9 in Blankenship (6,331,694) suggests that the fuel cell system has a finite life. It is considered obvious that the fuel cells in Blankenship (6,331,694) are “interchangeable” as claimed, since it is common engineering practice to interchange short lived components of a larger system.

6.) Claims 27-32 and 43-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blankenship (6,331,694) as applied to claims 5-9, 23-25, 33, 34, 36, and 40 above, and further in view of Blankenship et al. (6,552,303). The only aspects of the claims to which the rejection above does not apply are the limitations associated with the interchangeable control modules. These differences do not patentably distinguish over the prior art. At the time applicant's invention was made, it would have been obvious to have used any well known control approach for the welding power sources disclosed in Blankenship (6,331,694). In particular, it would have been obvious to have used a control approach that included control modules as claimed, the motivation being the teaching of Blankenship et al. (6,552,303) that

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interchangeable control modules can control the various aspects of a welding machine, including the electrical output parameters (see the WPS (welding procedure specification) buttons 100a in figure 2 or 502 in figure 5 and further see: the abstract; the discussion at column 2, line 30 through column 3; and the discussion at column 7, lines 5-50 were the setting of weld parameters, including electrical parameters, on the basis of digital data in an interchangeable memory button is discussed).

7.) Claims 41 and 42 rejected under 35 U.S.C. 103(a) as being unpatentable over Blankenship et al. (6,552,303). The discussion at columns 2-7 of Blankenship et al. (6,552,303) disclose interchangeable control modules in the form of memory buttons having features claimed. In regard to the claim language calling for "a control circuit within the housing", note that the memory buttons in Blankenship et al. (6,552,303) are digital memory elements and must inherently include some sort of circuitry within their housings. The claims differ from Blankenship et al. (6,552,303) in calling for a socket extending from the module housing. This difference does not patentably distinguish over the prior art. In column 7, lines 38-40 of Blankenship et al. (6,552,303) is a discussion of receptacles 62-66 that receive the memory buttons. It is considered obvious that the memory buttons must have a socket of some sort extending therefrom because they are disclosed as being received in receptacles.

8.) Claims 11-17, 19, 20, 26, and 37-39 are objected to for depending from rejected claims, but would be given favorable consideration if recast in independent form to include all of the limitations of the parent claims. None of the prior art of record teaches or suggests the

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limitation in claim 11 specifying that the energy storage device of the claimed welding power source that includes boost and buck converters is a battery pack. None of the prior art of record teaches or suggests the limitations in claims 12-17, 19, 20, 26, and 37-39 directed to a charger combined with the other claim features in a welding type power source or welding method that involve two power conversions.

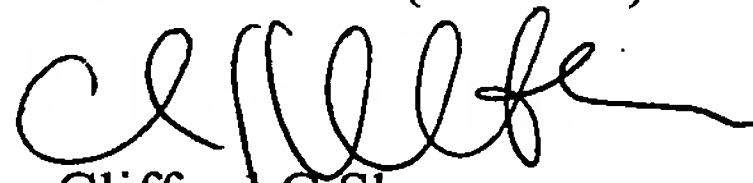
9.) Applicant's "Remarks" in the amendment filed on 1/9/2006 have been given careful consideration, but are not persuasive of patentability. Applicant's comments concerning the teachings of Blankenship (6,331,694) as applied to the battery based system of UK Patent Application GB2316244A are persuasive, and those claims that are directed to two conversions in combination with a battery or with a charger for an energy source (note: the charger would not be necessary in a fuel cell based system) have been objected to, but would be allowed if placed in independent form. The claims directed generally to a portable welding power source including an energy storage device are considered broad enough to be unpatentable over the fuel cell system of Blankenship (6,331,694) as discussed above. Applicant's comments in regard to the patent to Blankenship et al. (6,552,303) are not persuasive. The WPS memory buttons in Blankenship et al. (6,552,303) constitute "interchangeable control modules". In regard to claim 35, this claim is directed to a rechargeable battery. The claim includes further intended-use language, but this intended-use language does not impose any further structural limitations on the rechargeable battery that would distinguish over the applied prior art.

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Any inquiry concerning this communication should be directed to Clifford C Shaw at telephone number 571-272-1182. The examiner can normally be reached on Monday through Friday of the first week of the pay period and on Tuesday through Friday of the second week of the pay period.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Thomas G. Dunn, can be reached at 571-272-1171. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Clifford C Shaw
Primary Examiner
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March 19, 2006